

**REMARKS**

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

**I. CLAIM STATUS AND AMENDMENTS**

Claims 1-6 were pending in this application.

Claims 1-6 have been amended in a non-narrowing manner to better conform to U.S. claim form. Claim 1 has been further amended to specify that "n is an integer from 90 to 300". Support for amended claim 1 can be found in the disclosure, for example, at page 6, lines 5-6 and page 7, lines 13-15 and original claim 1.

No new matter has been added by the above claim amendments.

The specification has been amended at page 15, lines 10-27 to correct an inadvertent omission. Support can be found in the originally filed specification at the noted locations. No new matter has been added.

The Abstract has been amended to correct a typographical error. No new matter has been added.

Applicants are submitting the present amendment without prejudice to the subsequent prosecution of claims to some or all of such a matter which might be disclaimed by virtue of this response (although none is believed to be), and explicitly

reserve the right to pursue some or all of such subject matter, in divisional or continuation applications.

Applicants thank the Examiner for the careful examination of this case and respectfully request reexamination and reconsideration of the case, as amended. Below Applicants address the rejections in the Office Action and explain why the rejections are not applicable to the pending claims as amended.

## **II. OBJECTIONS TO THE SPECIFICATION**

The Abstract was objected for containing a typographical error as noted in Item 2 of page 2 of the Office Action. The present amendment overcomes this rejection for reasons which are self-evident.

The specification was objected to as allegedly failing to provide proper antecedent basis for the claimed subject matter for the reasons in Item 3 on page 2 of the Office Action. The present amendment overcomes this concern by amending claim 6 along the lines suggested by the Examiner.

Therefore, withdrawal of the above objections is solicited.

## **III. CLAIM OBJECTIONS**

Claims 2 and 3 were objected to as allegedly failing to further limit the subject matter of a previous claim to which they depend.

Applicants respectfully traverse this objection and note that the range of 2000 to about 13200 in claim 2 encompasses the amounts (2332 and 2318) noted in the Action. Likewise, the range of 280 to about 11800 in claim 3 encompasses the amount (3058) noted in the Office Action. Thus, withdrawal of the objection is therefore solicited.

#### **IV. OBVIOUSNESS REJECTION**

Claims 1-6 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over CERULLI et al. (U.S. 5,362,324) for the reasons set forth in Item 7 on pages 4-6 of the Office Action.

This rejection is respectfully traversed.

It is well established that to support a *prima facie* case of obviousness, the Office must provide a rationale showing that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions to yield predictable results. See, *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 U.S.P.Q.2d 1385, 1395 (2007); and M.P.E.P., Eighth Ed., Rev. 6 (September 2007) at § 2143.02.

As now amended, claim 1 specifies that "n" in the monomers of formula (V) is from 90 to 300. Applicants

respectfully submit that CERULLI fails to disclose or suggest this feature of amended claim 1.

In this regard, in the outstanding Office Action, the Office states that "obviousness exists where the claimed range and prior art do not overlap, but are close enough so that one skilled in the art would have expected them to have the same properties", due to the fact that the additive of claim 1, as originally filed, contains a monomer of formula (V) wherein "n" ranges between 51 and 300, while in prior art document of CERULLI et al. "n" ranges from 8 to 50.

Applicants respectfully submit that specifying the amended range to 90-300 overcomes the rejection, because: (1) CERULLI fails to disclose or suggest this new range; and (2) the amended claims achieve surprising and unexpected properties, in which the use of monomers of formula (V), wherein n is comprised between 90 and 300 results in improved superplasticizers, which distinguishes from those of the cited prior art in that they accelerate cement hydration and improve early strength.

In this regard, Applicants respectfully submit that the superplasticized additive of amended claim 1 achieves surprising and unexpected results over the prior art compounds. It is well established that the presence of surprising unexpected results is evidence of non-obviousness. See M.P.E.P., 8<sup>th</sup> Ed., Rev. 6 (Sept. 2007) at § 716.02(a) I-IV and § 2145.

For instance, as shown below in the graphical representation of the results of Example 5 (Figure 1), the claimed superplasticized additive results in improved mechanical strength development when "n" in formula (V) is an integer higher than 90.

See also the discussion at page 13, lines 1-18, wherein it is discussed that higher values of "n" (e.g.,  $n = 100$ ) develops earlier mechanical strength at low temperature in comparison with lower values of "n" (e.g.,  $n = 52$ ).

Moreover, CERULLI does not provide any hint or suggestion which would have prompted the skilled artisan to increase, with a reasonable expectation of success, the n value in the monofunctional monomer of formula (V) of claim 1 to a

range of 90 to 300 in order to improve the early strength development of cement-based materials.

For these reasons, Applicants respectfully submit that the claimed invention is deemed novel and nonobvious over CERULLI.

Accordingly, it is respectfully submitted that: (1) CERULLI fails to disclose or suggest each and every element of the superplasticizing additive of amended claim 1; (2) the claimed superplasticizing additive achieves surprising and unexpected results over prior art; and (3) there is no suggestion of CERULLI to increase to n integer to a range of 90 to 300.

As such, CERULLI cannot be said to render obvious the superplasticizing the additive of independent claim 1. Therefore, claim 1 is novel and obvious over CERULLI.

Claims 2-6 depend, either directly or indirectly, on claim 1. These dependent claims are also novel and non-obvious for the same reasons in view of their dependency on claim 1.

Withdrawal of the above § 103 obviousness rejection is therefore solicited.

## **V. CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and early notice to that effect is hereby requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

The Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any deficiency or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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**APPENDIX:**

The Appendix includes the following item(s):

☒ - a new or amended Abstract of the Disclosure